AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1   1. (Currently Amended) A method of modifying a subscription of a subscriber to one or

2   more telecommunications services based on subscriber information and service

3   information that are stored in a directory repository, the method comprising the

4   computer-implemented steps of:

5   determining whether the subscriber is currently logged in, and if the subscriber is not

6   currently logged in, directing the subscriber to log in through an

7   authentication server and generating a privilege token associated with the

8   authenticated subscriber by an authorization service, wherein said

9   authorization service is separate from said authentication server;

10   receiving a modification request to modify the subscription of the subscriber to the

11   one or more telecommunication services;

12   determining, based on privilege information in [a] the privilege token associated with

13   the subscriber generated by the authorization service, whether the subscriber

14   has privileges services sufficient to carry out the requested modification;

15   if the subscriber is determined to have sufficient privileges, then performing the steps

16   of:

17   receiving, from the directory repository, first subscriber information and first

18   service information representing only such services for which the

19   subscriber is then currently subscribed;

20   modifying the first subscriber information and first service information to

21   reflect the modification;

22   sending the modified information to the directory repository, resulting in

23   creating and storing, in the directory repository, second service

24   information that reflects the modification;

25   generating an engagement request to engage the telecommunications service

26   for the subscriber in order to fulfill the modification request.

1   2.   (Currently Amended) A method as recited in Claim 1, wherein the authorization

2   service generates the privilege token by the steps of:

3   receiving a user name associated with the subscriber and mapping the user name to a

4   distinguished name in the directory repository;

5   creating and storing in the privilege token[,] one or more roles occupied by the

6   subscriber based on role information that is stored in the directory repository,

7   <u>said stored role information including mapping information that maps a role to</u>

8   <u>one or more privileges that specify which telecommunications services a</u>

9   <u>subscriber having that role can subscribe to</u>.

1   3.   (Currently Amended) A method as recited in Claim 1, wherein the step of

2   determining whether the subscriber is currently logged in comprises determining whether

3   ~~storing~~ a host object that uniquely identifies the subscriber exists, and wherein the privilege

4   token ~~corresponding to~~ <u>associated with</u> the subscriber is stored with the host object that

5   uniquely identifies the subscriber.

1   4.   (Previously Amended) A method as recited in Claim 1, wherein the step of generating

2   an engagement request comprises the steps of subscribing the subscriber to the service by

3   creating and storing a relation of a subscriber object that programmatically represents the

4   subscriber to a service object that programmatically represents the service, and creating and

5   storing one or more attribute values in the relation, wherein the attribute values define the

6   subscription.

1   5.   (Currently Amended) A method of modifying subscriptions of a group of subscribers

2   to one or more telecommunications services based on subscriber information and service

3   information that are stored in a directory repository, the method comprising the computer-

4   implemented steps of:

5   receiving from an administrator of the group, a request to modify the subscriptions of

6   the subscribers to the one or more telecommunications services;

7   determining, based on privilege information in a privilege token that is associated

8   with the administrator and is generated by an authorization service, whether

9   the administrator has privileges sufficient to carry out the requested

10   modification;

11   if the administrator is determined to have sufficient privileges, then performing the

12   steps of:

13   receiving, from the directory repository, current subscriber information and

14   current service information representing then-current services to which

15   the subscribers are subscribed;

16   modifying the subscriber information and service information to reflect the

17   modifications, resulting in creating and storing, in the directory

18   repository, updated service information that reflects the modifications;

19   generating one or more requests to subscribe the telecommunications service

20   to the group of subscribers to fulfill the request of the administrator.

1   6.   (Original) A method as recited in Claim 5, wherein the group of subscribers is

2   defined explicitly by creating and storing a named group that contains one or more

3   subscribers as group members.

1   7.   (Original) A method as recited in Claim 5, wherein the group of subscribers is

2   defined implicitly such that the group comprises one or more subscribers in an object tree of

3   the directory repository who are subordinate in the tree to a container node of the tree.

1   8.   (Original) A method as recited in Claim 5, further comprising the steps of subscribing

2   one of the subscribers in the group to the service by creating and storing a relation of a

3   subscriber object that programmatically represents the subscriber to a service object that

4   programmatically represents the service, and creating and storing one or more attribute

5   values in the relation, wherein the attribute values define the subscription.

1   9.   (Currently Amended) A method of automatically logging in a subscriber to all

2   telecommunications services subscribed to by the subscriber based on subscriber information

3   and service information that are stored in a directory repository, the method comprising the

4   computer-implemented steps of:

5   receiving a request from the subscriber to log in to the telecommunications services;

6   authenticating the subscriber by an authentication server;

7   generating a privilege token associated with the subscriber by an authorization

8   service, wherein said authorization service is separate from said authentication

9   server;

10 determining whether the subscriber is allowed to automatically log into the

11 telecommunication services, said determination based on privilege

12 information in the privilege token associated with the subscriber;

13 if the subscriber is allowed to automatically log into the telecommunications services,

14 receiving, from the directory repository, a list of all services for which the

15 subscriber is then currently subscribed[;]͵ and automatically logging the

16 subscriber into all services identified in the list.

1 10. (Original) A method as recited in Claim 9, wherein automatically logging the

2 subscriber into all services identified in the list comprises the steps of:

3 for each of the services identified in the list:

4 obtaining service information that describes the services from the directory

5 repository;

6 creating and storing a relation between a service object in the directory repository that

7 uniquely identifies and represents each of the services and privileges of the

8 subscriber, and a subscriber object that uniquely represents the subscriber.

1 11. (Original) A method as recited in Claim 10, further comprising the steps of storing

2 the privilege token in a service selection gateway for use in subsequent authorization

3 processes relating to the subscriber.

1 12. (Cancelled)

1   13.   (Previously Amended) A method of automatically subscribing a subscriber to a

2   telecommunications service based on subscriber information and service information that are

3   stored in a directory repository, the method comprising the computer-implemented steps of:

4   receiving a request from the subscriber to obtain a list of available

5   telecommunications services;

6   generating a list of only those telecommunications services for which the subscriber

7   has a privilege to subscribe to, based on privilege information and service

8   information that is stored in the directory repository and associated with the

9   subscriber, said privilege information associated with the subscriber

10   specifying what telecommunications services the subscriber has privileges to

11   subscribe to;

12   receiving a subscriber selection of one of the telecommunications services from the

13   generated list of telecommunications services;

14   verifying that the subscriber has privileges that permit the subscriber to subscribe to

15   the selected telecommunications service;

16   creating and storing updated subscription information in the directory repository;

17   generating a request to subscribe the subscriber to the selected telecommunications

18   service based on the updated subscription information.

1   14.   (Previously Amended) A method as recited in Claim 13, wherein said privilege

2   information associated with the subscriber is comprised of a privilege token for the

3   subscriber that identifies a role of the subscriber, wherein the privileges of the subscriber to

4   subscribe to a telecommunications service is determined by the role in the privilege token for

5   the subscriber.

1 15. (Original) A method as recited in Claim 13, wherein generating a list of only those

2 telecommunications services for which the subscriber has a privilege to subscribe to includes

3 the step of generating and providing to the subscriber a custom display page that identifies

4 only those telecommunications services for which the subscriber has a privilege to subscribe.

1 16. (Currently Amended) A computer-readable medium carrying one or more sequences

2 of instructions for modifying a subscription of a subscriber to one or more

3 telecommunications services based on subscriber information and service information that

4 are stored in a directory repository, which instructions, when executed by one or more

5 processors, cause the one or more processors to carry out the steps of:

6   determining whether the subscriber is currently logged in, and if the subscriber is not

7   currently logged in, directing the subscriber to log in through an

8   authentication server and generating a privilege token associated with the

9   authenticated subscriber by an authorization service, wherein said

10   authorization service is separate from said authentication server;

11   receiving a modification request to modify the subscription of the subscriber to the

12   one or more telecommunications services;

13   determining, based on privilege information in [a] the privilege token associated with

14   the subscriber generated by the authorization service, whether the subscriber

15   has privileges sufficient to carry out the requested modification;

16   if the subscriber is determined to have sufficient privileges, the one or more

17   sequences of instructions which, when executed, further cause the one or more

18   processors to carry out the steps of:

19   receiving, from the directory repository, first subscriber information and first

20   service information representing only such services for which the

21   subscriber is then currently subscribed;

22   modifying the first subscriber information and first service information to

23   reflect the modification;

24   sending the modified information to the directory repository, resulting in

25   creating and storing, in the directory repository, second service

26   information that reflects the modification;

27   generating an engagement request to engage the telecommunications service

28   for the subscriber in order to fulfill the modification request.

1 17. (Currently Amended) An apparatus for modifying a subscription of a subscriber to

2 one or more telecommunications services based on subscriber information and service

3 information that are stored in a directory repository, comprising:

4   means for determining whether the subscriber is currently logged in, and if the

5   subscriber is not currently logged in, means for directing the subscriber to log

6   in through an authentication server and <u>means for </u>generating a privilege token

7   associated with the authenticated subscriber by an authorization service<u>,</u>

8   <u>wherein said authorization service is separate from said authentication server</u>;

9   means for receiving a modification request to modify the subscription of the

10   subscriber to the one or more telecommunications services;

11   means for determining, based on privilege information in [a] <u>the</u> privilege token

12   associated with the subscriber generated by the authorization service, whether

13   the subscriber has privileges sufficient to carry out the requested modification;

14   means for receiving, from the directory repository, first subscriber information and

15   first service information representing only such services for which the

16   subscriber is then currently subscribed;

17   means for modifying the first subscriber information and first service information to

18   reflect the modification;

19   means for sending the modified information to the directory repository, resulting in

20   creating and storing, in the directory repository, second service information

21   that reflects the modification;

22   means for generating an engagement request to engage the telecommunications

23   service for the subscriber in order to fulfill the modification request.

1   18.   (Currently Amended) An apparatus for modifying a subscription of a subscriber to

2   one or more telecommunications services based on subscriber information and service

3   information that are stored in a directory repository, comprising:

4   a network interface that is coupled to a data network that includes the directory

5   repository for receiving information therefrom;

6   a processor;

7   one or more stored sequences of instructions which, when executed by the processor,

8   cause the processor to carry out the steps of:

9   determining whether the subscriber is currently logged in, and if the

10   subscriber is not currently logged in, directing the subscriber to log in

11   through an authentication server and generating a privilege token

12   associated with the authenticated subscriber by an authorization

13   service, wherein said authorization service is separate from said

14   authentication server;

15   receiving a modification request to modify the subscription of the subscriber

16   to the one or more telecommunications services;

17   determining, based on privilege information in [a] the privilege token

18   associated with the subscriber that is generated by the authorization

19   service, whether the subscriber has privileges sufficient to carry out

20   the requested modification;

21   if the subscriber is determined to have sufficient privileges, the one or more

22   sequences of instructions which, when executed, further cause the

23   processor to:

24   receiving, from the directory repository, first subscriber information

25   and first service information representing only such services

26   for which the subscriber is then currently subscribed;

27   modifying the first subscriber information and first service information

28   to reflect the modification;

29   sending the modified information to the directory repository, resulting

30   in creating and storing, in the directory repository, second

31   service information that reflects the modification;

32   generating an engagement request to engage the telecommunications

33   service for the subscriber in order to fulfill the modification

34   request.

1   19.   (Currently Amended) A method of modifying a subscription of a subscriber to a

2   telecommunications service based on information stored in a directory repository, the method

3   comprising the computer-implemented steps of:

4   receiving a request to identify one or more services to which a subscriber is

5   subscribed, based on a prior request to modify the subscription of the

6   subscriber to the telecommunications service;

7   generating a list of the one or more services to which the subscriber is currently

8   subscribed, based on group membership of the subscriber, one or more roles

9   occupied by the subscriber, and authorization information associated with the

10   subscriber that is stored in the directory repository, wherein said one or more

11   roles are mapped to one or more privileges that specify which

12   telecommunications services a subscriber having that role can subscribe to;

13   generating individual service information for each of the one or more services in the

14   list, based on subscriber information and service information that is stored in

15   the directory repository, for use in automatically subscribing the subscriber to

16   a service that is represented by the individual service information.

1   20.   (Currently Amended) A computer-readable medium carrying one or more sequences

2   of instructions for modifying a subscription of a subscriber to a telecommunications service

3   based on subscriber information and service information that are stored in a directory

4   repository, which instructions, when executed by one or more processors, cause the one or

5   more processors to carry out the steps of:

6   receiving a request to identify one or more services to which a subscriber is

7   subscribed, based on a prior request to modify the subscription of the

8   subscriber to the telecommunications service;

9   generating a list of the one or more services to which the subscriber is currently

10   subscribed, based on group membership of the subscriber, one or more roles

11   occupied by the subscriber, and authorization information associated with the

12   subscriber that is stored in the directory repository, wherein said one or more

13   roles are mapped to one or more privileges that specify which

14   telecommunications services a subscriber having that role can subscribe to;

15 generating individual service information for each of the one or more services in the

16   list, based on subscriber information and service information that is stored in

17   the directory repository, for use in automatically subscribing the subscriber to

18   a service that is represented by the individual service information.

1   21.   (Currently Amended) An apparatus for modifying a subscription of a subscriber to a

2   telecommunications service based on subscriber information and service information that are

3   stored in a directory repository, comprising:

4   means for receiving a request to identify one or more services to which a subscriber is

5   subscribed, based on a prior request to modify the subscription of the

6   subscriber to the telecommunications service;

7   means for generating a list of the one or more services to which the subscriber is

8   currently subscribed, based on group membership of the subscriber, one or

9   more roles occupied by the subscriber, and authorization information

10   associated with the subscriber that is stored in the directory repository,

11   wherein said one or more roles are mapped to one or more privileges that

12   specify which telecommunications services a subscriber having that role can

13   subscribe to;

14   means for generating individual service information for each of the one or more

15   services in the list, based on subscriber information and service information

16   that is stored in the directory repository, for use in automatically subscribing

17   the subscriber to a service that is represented by the individual service

18   information.

1   22.   (Currently Amended) An apparatus for modifying a subscription of a subscriber to a

2   telecommunications service based on subscriber information and service information that are

3   stored in a directory repository, comprising:

4   a directory-enabled service selection framework that is coupled to the directory

5   repository for receiving stored information therefrom;

6   a processor;

7   one or more stored sequences of instructions in the framework which, when executed

8   by the processor, cause the processor to carry out the steps of:

9   receiving a request to identify one or more services to which a subscriber is

10   subscribed, based on a prior request to modify the subscription of the

11   subscriber to the telecommunications service;

12   generating a list of the one or more services to which the subscriber is

13   currently subscribed, based on group membership of the subscriber,

14   one or more roles occupied by the subscriber, and authorization

15   information associated with the subscriber that is stored in the

16   directory repository, wherein said one or more roles are mapped to one

17   or more privileges that specify which telecommunications services a

18   subscriber having that role can subscribe to;

19   generating individual service information for each of the one or more services

20   in the list, based on subscriber information and service information

21   that is stored in the directory repository, for use in automatically

22   subscribing the subscriber to a service that is represented by the

23   individual service information.